

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1 - 8. (Cancelled).

9. (Currently Amended) An image processing device comprising:

a processor for:

~~setting~~ displaying a character model;

~~setting~~ displaying a plurality of light source models
illuminating the character model;

~~creating to create~~ a plurality of shadow models to display
shadows created by the plurality of light source
models, the plurality of shadow models having
non-color values and non-transparency values;

~~setting~~ displaying a plurality of gradation polygons that
overlap with a portion of corresponding ones of the
plurality of shadow models as seen from a viewpoint,
the gradation polygons having non-color values and
transparency values for the corresponding ones of the
shadow models; and

~~setting transparency values for the plurality of shadow~~
~~models;~~

displaying a color for the shadow models based on a
background color value behind the shadow models, a
transparency value being set for the background

color, and a corresponding transparency value being set for the corresponding gradation polygons,

~~wherein where determining a first area of overlap of two or more of the plurality of gradation polygons overlap, the transparency value for the background color is set to the non-transparency value to make the background color non-transparent so that the color of one of the shadow models closer to the viewpoint is calculated based on the background color value behind a closer one of the shadow models and the corresponding transparency value set for the corresponding gradation polygon for the closer one of the shadow models.~~

~~wherein the first area of overlap does not overlap the plurality of shadow models;~~

~~determining a second area of overlap of two or more of the plurality of gradation polygons and at least one of the plurality of shadow models; and~~

~~displaying the second area of overlap in a darker color than the first area of overlap.~~

10 - 16. (Cancelled).

17. (Currently Amended) An image processing device for performing an image processing movement which generates a shadow of a motion character moving on a display screen, when lights are irradiated onto the motion character by a plurality of light sources, comprising:

a shadow model modeling means for modeling a plurality of shadow models each having color information and a transparency of 100%.

0% designated corresponding to each of the plurality of light sources;

a gradation polygon modeling means for modeling a plurality of gradation polygons, ~~each of the plurality of gradation polygons being modeled to overlap with corresponding ones of the plurality of shadow models as seen from a viewpoint, each of the plurality of shadow models being arranged above the corresponding ones of the plurality of gradation polygons, and each of the plurality of gradation polygons being set with a transparency of the corresponding ones of the plurality of shadow models;~~

a filter polygon modeling means for modeling a ~~plurality of filter polygons~~ polygon for cutting off the transparency set to a background color for a gradation polygon closer to the viewpoint ~~corresponding ones of the plurality of gradation polygons, each of the plurality of filter polygons overlapping a plurality of units of the plurality of shadow models and the plurality of gradation polygons, the plurality of filter polygons having color information and a designated transparency of 0 %; and~~

a pixel generation means that generates pixels to represent the shadow model ~~of the motion character~~ based on the background color, the transparency set for the background color, and the transparency set for the corresponding gradation polygon,

wherein where two or more of the plurality of gradation polygons overlap, the filter polygon is arranged between the overlapping gradation polygons so as to alter the transparency for the background color so that the color for a shadow model closer to the viewpoint is calculated based on the background color behind the closer shadow model and the corresponding transparency set for the corresponding gradation polygon for the closer shadow model.

~~plurality of units of the plurality of shadow models and the plurality of
gradation polygons.~~

18 - 19. (Cancelled).

20. (Currently Amended) A method for processing an image, comprising:

~~setting displaying~~ a character model;

~~setting displaying~~ a plurality of light source models illuminating the
character model;

~~creating to create~~ a plurality of shadow models to display shadows created
by the plurality of light source models, the plurality of shadow
models having non-color values and non-transparency values;

~~setting displaying~~ a plurality of gradation polygons that overlap with a
portion of corresponding ones of the plurality of shadow models as
seen from a viewpoint, the gradation polygons having non-color
values and transparency values for the corresponding ones of the
shadow models;

~~setting transparency values for the plurality of shadow models;~~

~~displaying a color for the shadow models based on a background color
value behind the shadow models, a transparency value being set
for the background color, and a corresponding transparency value
being set for the corresponding gradation polygons,~~

~~wherein where determining a first area of overlap of two or more of the
plurality of gradation polygons overlap, the transparency value set
for the background color is set to the non-transparency value to
make the background color non-transparent so that the color of one
of the shadow models closer to the viewpoint is calculated based
on the background color value behind a closer one of the shadow~~

models and the corresponding transparency value set for the corresponding gradation polygon for the closer one of the shadow models.

~~wherein the first area of overlap does not overlap the plurality of shadow models;~~

~~determining a second area of overlap of two or more of the plurality of gradation polygons and at least one of the plurality of shadow models; and~~

~~displaying the second area of overlap in a darker color than the first area of overlap.~~

21 - 27. (Cancelled).

28. (Currently Amended) A method for generating a shadow of a motion character moving on a display screen, comprising:

modeling a plurality of shadow models having color information and a transparency of ~~100%~~ 0% designated corresponding to each of the plurality of light sources that are irradiated onto the motion character;

modeling a plurality of gradation polygons, ~~each of the plurality of gradation polygons being modeled to overlap with corresponding ones of the plurality of shadow models as seen from a viewpoint, each of the plurality of shadow models being arranged above the corresponding ones of the plurality of gradation polygons, and each of the plurality of gradation polygons being set with a transparency of the corresponding ones of the plurality of shadow models;~~

modeling a ~~plurality of filter polygons~~ polygon for cutting off the transparency set to a background color for a gradation polygon

~~closer to the viewpoint corresponding ones of the plurality of
gradation polygons, each of the plurality of filter polygons
overlapping a plurality of units of the plurality of shadow models
and the plurality of gradation polygons, the plurality of filter
polygons having color information and a designated transparency
of 0 %; and~~

generating pixels to represent the shadow model of the motion character
based on the background color, the transparency set for the
background color, and the transparency set for the corresponding
gradation polygon.

wherein where two or more of the plurality of gradation polygons overlap,
the filter polygon is arranged between the overlapping gradation
polygons so as to alter the transparency set for the background
color so that the color for a shadow model closer to the viewpoint is
calculated based on the background color behind the closer
shadow model and the corresponding transparency set for the
corresponding gradation polygon for the closer shadow model.

~~plurality of units of the plurality of shadow models and the plurality of
gradation polygons.~~